PORTSMOUTH PORT DEVELOPMENT STUDY

TASK III: DETAILED EVALUATION

DRAFT REPORT

Prepared for:

OFFICE OF STATE PLANNING
STATE OF NEW HAMPSHIRE
2 1/2 BEACON STREET
CONCORD, NEW HAMPSHIRE 03301

Prepared by:

TEMPLE, BARKER & SLOANE, INC.
33 HAYDEN AVENUE
LEXINGTON, MASSACHUSETTS 02173

April 11, 1986

PORTSMOUTH PORT DEVELOPMENT STUDY

TASK III: DETAILED EVALUATION

DRAFT REPORT

Prepared for:

OFFICE OF STATE PLANNING
STATE OF NEW HAMPSHIRE
2 1/2 BEACON STREET
CONCORD, NEW HAMPSHIRE 03301

Prepared by:

TEMPLE, BARKER & SLOANE, INC.
33 HAYDEN AVENUE
LEXINGTON, MASSACHUSETTS 02173

April 11, 1986

CONTENTS

I. EXECUTIVE SUMMARY

A. INTRODUCTION

- This document presents the results of Task III: Detailed Evaluations of Development Options for the Portsmouth Port Region Development Study.

- The Task III effort focused on the evaluation of the three development options selected by the Advisory Committee from the list of 16 options presented by the consultants.

- The three options selected for evaluation were as follows:

  1. Development of Dredge Spoil Containment area

  2. Development of a second berth with Roll-On/Roll-Off (Ro/Ro) capability at the existing State Pier

  3. Management options for improving or terminating the State Port Authority and its facilities

- The remainder of this chapter presents the findings and recommendations of the Task III effort. Chapter II identifies key issues relevant to the Task III effort; Chapter III provides an overview of market demand for selected water dependent activities; Chapter IV presents the evaluation of each development option; and Chapter V contains TBS's recommendations.

B. FINDINGS AND RECOMMENDATIONS

Market Potential

- An assessment of current and emerging trends in cargo tonnage indicates that significant growth potential exists for both scrap steel and containerized cargoes. Significant increases in scrap steel tonnage have already begun to occur at the Port Authority facility. These increases are the result of a shift of those cargoes from Boston to Portsmouth following the closing of the Schiavoni scrap terminal in Boston.

- Potential increases in containerized cargoes are associated with the New Hampshire State Liquor Commission, increased imports of wine products by New England distributors and container tonnages identified in the 1983 Reebie Market Survey.

- The Port Authority will realize increased revenues over the next five years due to the signing of a new lease between the State and Viking Cruises. Based on Viking Cruises' market outlook, this lease could generate upwards of $100,000 per year.

Development Options

- Option 1, Development of a Dredge Spoil Containment Area, is estimated to cost $14.0 million (Exhibit I-1). This option includes construction of 10-acre and 1.5-acre sites with dredgings from the Piscataqua River dredging project. Facilities included in the option are one 750-foot by 35-foot deep berth, two 350-foot berths with 25 feet alongside, and one 200-foot berth with 9-12 feet alongside.

Development Options (continued)

- Annual capital costs based on 30-year general delegation bonds and a 10 percent interest rate equal to $1.6 million per year. Addition of annual capital costs for the existing facility add an additional $0.1 million to these costs.

- Based on TBS's market analysis, potential revenues to be realized approximate $0.5 million annually (Exhibit I-2). The total economic return to the State from these activities is estimated between $7-$8 million.

- Option 2, Development of a Second Berth with Ro/Ro Capability at the Existing Pier, is estimated to cost $11 million (Exhibit I-3). Included in this cost is a 700-foot extension of the existing berth and a 250-foot Ro/Ro berth capable of handling stern, bow, or side-ramped vessels.

- Annual capital costs, based on 30-year general obligation bonds and an interest rate of 10 percent, are estimated at $1.2 million. Included are $13 million of existing facility capital costs.

- Although the Port Authority has received numerous inquiries from carriers interested in providing Ro/Ro service to Portsmouth, TBS has been unable to identify an existing service or documented flow that supports projection of a revenue stream. Therefore, revenue projections are based on the data provided for Option 1, excluding revenues from other bulk cargoes and commercial fishing vessels or $0.3 million per year.

Development Options (continued)

- TBS's evaluation of Option 3 focused on alternative methods for improving the operation of the Port Authority or terminating its operations within the context of existing facility and lease constraints.

- Short-term options for improving the Port Authority's operations include increased emphasis on marketing to specific cargo opportunities and expanding the scope of the Port Authority's operations.

- A long-term option for improving the operation of the Port Authority is the assumption of the terminal operations. This option would increase the State's control over pricing, operating, and marketing of the terminal and potentially increase its revenues. This option could only be implemented after 1992--the expiration date for the Clark contract.

Recommendations

- The Port Authority should actively pursue the creation of the dredge spoil containment area--Option 1.

  --This option provides the Port Authority with the greatest potential for diversifying its cargo and revenue base, rationalizing industrial and commercial waterfront uses within the Portsmouth Port Region, and attracting new users (fishing, cruise ships, industrial tenants, etc.) to its facility.

  --Due to the long lead time associated with this option, i.e., approximately two years before dredging would begin, it affords the Port Authority ample time to identify and attract potential users to the facility. If by the time the State is required to commit substantial sums to the project, additional demand has not materialized, the State has the option to proceed with or terminate the project.

Recommendations (continued)

--Assuming the State were to proceed and sufficient demand did not materialize, the maximum exposure to the State would be from 1989 to 1992, during which time it would incur two to three years of unamortized debt or about $4.8 million. However, this amount would in all likelihood be recaptured through the sale of all or a portion of the Port Authority property.

--Consequently, the dredge spoil containment area provides the least downside risk of the two capital development options.

- Option 2: Addition of a second berth with Ro/Ro capability at the existing pier does not represent the best use of State resources.

  --Option 2 provides limited diversification opportunities relative to Option 1--principally Ro/Ro which could be added in the containment area.

  --The upside potential (primarily Ro/Ro) for Option 2 is less and the downside risk (inability to recover investment) greater--unless the State chose to sell the existing facility to retire the debt.

- Given the potential opportunities to expand the Port Authority's operations and improve its performance, the Port Authority should not be terminated. The absence of maritime expertise in other State agencies, combined with a lack of credibility within the industry, would hinder the pursuit of the existing opportunities.

  --Recent improvements in the Port Authority's financial performance, combined with substantial increases in scrap indicate potential exists for continued improvement. This improvement could be further enhanced if the Port Authority/Hapag-Lloyd are successful in capturing a share of the New Hampshire State Liquor Commissions' cargoes.

Recommendations (continued)

- The Port Authority should develop a detailed plan for attracting additional cargoes to its existing facility and for marketing the dredge spoil containment area. Key components of the plan should include:

  --Maximum effort in the short-term to obtaining a major share of the New Hampshire State Liquor Commissions' cargoes

  --Identification and solicitation of bulk cargoes that could be accommodated in the dredge spoil containment area--Granite State Minerals representing a priority flow

  --Initiate discussions with the Port of Halifax and Hapag-Lloyd regarding the marketing of the Yankee Clipper to major lines with particular emphasis on lines serving areas other than the United Kingdom/Continent.

  --Pursuit of the potential opportunities identified in the Reebie market survey with particular emphasis on export cargoes

  --Increased cooperation and coordination of marketing efforts among the Port Authority, John T. Clark, Boston Overseas, and Hapag-Lloyd

- During the next four years, the Port Authority and its Board should begin to explore its options as they relate to the expiration of the Clark lease. Specifically, the Port Authority should:

  --Explore modification of the lease in order to remedy existing shortcomings as they relate to pricing and control of the premises

  --Assess the managerial, technical, and financial aspects of becoming an operating port

  --Initiate preliminary discussions with a number of terminal operators regarding leasing of the facility (post-1988)

Exhibit I-1

COST OF CONSTRUCTION AND IMPROVEMENTS OF NEW TERMINAL
IN CONTAINMENT AREAS NORTH OF MAINE-NEW HAMPSHIRE INTERSTATE BRIDGE

(Option 1)

Construction Cost	Site No.1	Site No. 2	Other	Total
Containment Site	$8,450,000	$1,650,000		$10,100,000
Bridge			$400,000	400,000
Total	$8,450,000	$1,650,000	$400,000	$10,500,000
Improvements Cost				
Dredging	$ 470,000	$ 220,000		$ 690,000
Site work (utilities, security, surfacing, drainage)	900,000	140,000		1,040,000
Apron, fenders, etc.	1,340,000	220,000		1,560,000
Transit shed	1,000,000			1,000,000
Total	$3,710,000	$ 590,000		$ 4,300,000
Total Cost				$14,800,000

Exhibit I-2

SUMMARY OF ESTIMATED DIRECT REVENUES TO PORT AUTHORITY
DREDGE SPOIL CONTAINMENT AREA AND EXISTING FACILITY

Activity	Revenue Basis	Projected Units/Year	Annual Revenues
Scrap Metal	$150,000 base revenue	300,000 tons	$150,000[b]
	80% of dockage/wharfage in excess of $150,000		30,720
Containers	$7/20 ft. unit	100 units	560[a]
	$14/40 ft. unit	900 units	10,080[a]
Commercial fishing	$650/vessel	3 vessels	1,950
Viking Cruises	$27,500 base revenue	—	27,500
	$0.75/passenger	100,000 passengers	75,000
Other bulk cargo	$130,000 base lease		130,000[b]
	$0.25/ton dockage	250,000 tons	62,500
Miscellaneous revenues			10,000[c]
Total			$498,310

[a] 80% of dockage and wharfage fees from Yankee Clipper.
[b] Based on estimated annual per acre containerization cost of site No. 1.
[c] Dockage from miscellaneous vessel calls and fees.

Source: TBS.

Exhibit I-3

COST OF CONSTRUCTION AND IMPROVEMENTS
OF EXISTING TERMINAL EXTENSION

(Option 2)

Construction Cost	
Foundation	$2,075,000
Curtain wall	2,810,000
Superstructure	3,105,000
Earthwork	1,500,000
Total	$9,490,000
Improvements Cost	
Dredging	$ 535,000
Fender system, etc.	350,000
Utilities	250,000
Miscellaneous site work	375,000
Total	$1,510,000
Total Cost	$11,000,000

II. MAJOR ISSUES

A. INTRODUCTION

- The New Hampshire State Port Authority (Port Authority) is at a critical juncture, facing serious challenges to its existence, including:

  --A recommendation by the State Sunset Committee to terminate the Port Authority

  --A lack of direction and support from the State regarding its mission, the the resources required to support its mission, and the criteria by which its performance is measured

  --The potential loss of New England traffic to other ports due to regulatory and technological factors

- While each of these challenges is formidable and has potentially negative implications for the Port Authority, there also exists potential opportunities to expand both the Port Authority's scope of operations and economic contribution to the local and state economies.

- Realization of these opportunities requires investment in physical facilities and improved management.

- This chapter addresses the challenges confronting the Port Authority. Major opportunities that are potentially available to the Port Authority are addressed in Chapter III: Overview of Market Demand.

B. SUNSET COMMITTEE RECOMMENDATION

- In summary, the Sunset Committee's recommendations were as follows:

  1. Terminate the Port Authority.

  2. Transfer Port Authority property management to another state agency.

  3. Transfer Port Authority economic development functions to the Department of Resources and Economic Development (DRED) and general economic development programs.

  4. Transfer Port Authority regulatory functions to local jurisdictions or another state agency.

- The Sunset Committee based these recommendations on several factors, including:

  1. The Port Authority's mission is too broad--responsibilities in areas where there is probably no need for State involvement

  2. The Port Authority's lack of visibility within State government

  3. Lack of control over the Port Authority's principal asset--the State Pier

  4. Limited staff resources

  5. Overlapping responsibilities

  6. Lack of leadership by the Port Authority Board

B. SUNSET COMMITTEE RECOMMENDATION (continued)

- The first three items suggest that the State has not clearly defined and implemented the enabling legislation that created the Port Authority. The last three items suggest that both the State and the Port Authority Board have not provided direction and support to the Port Authority.

- However, the solution is not necessarily to terminate the Port Authority, but to clearly define the State's mission in managing its coastal resources. Without a clear definition of the State's mission (i.e., what it wants to do with its coastal resources), it is impossible to establish a coherent management program. The duplication of responsibilities for coastal resources between the Port Authority and DRED serves to highlight this problem.

- Once the State clearly defines its mission or role in managing coastal resources, it can then establish criteria for evaluating how effectively the State and individual agencies are fulfilling their roles. At that point, if the Port Authority does not support the State's role or meet its performance criteria then it should be terminated or consolidated into another agency.

C. STATE SUPPORT

- As cited by the Sunset Committee, the State has not provided the level of support necessary to enable the Port Authority to perform its perceived mission.

C. STATE SUPPORT (continued)

- The historical lack of capital improvements and a marketing position within the Port Authority, and the use of ports other than Portsmouth by the State Liquor Commission exemplify this lack of support.

- Without the facilities and staff to plan port and commercial development; and promote shipping, port-related industry, commerce, and commercial fishing, these missions are impossible to achieve.

- During the course of this study, suggestions have been made that the Port Authority should be managed as a business, i.e., bottom-line financial performance. This represents one approach--the private sector business approach. Another approach taken by many port authorities is the public policy approach--creation of employment and economic benefit.

- Both approaches have been successfully applied in the port industry. Both also imply specific criteria by which the success or failure of a port can be measured.

- Regardless of the approach taken in evaluating the Port Authority, resources and support must be committed to provide it with a reasonable chance of meeting the criteria set forth.

D. REGULATORY AND TECHNOLOGICAL ISSUES

- Deregulation and technological change have brought profound changes to the U.S. transportation (air, truck, rail, and marine) industry. The Task I report discussed these changes in detail.

- The major changes as they relate to the Port Authority are as follows:

  --The cargo routing decision has shifted from shippers to carriers.

  --The expansion of carriers' contracting and rate setting authority have enabled them to concentrate their operations in a few hub centers.

  --Oversupply, depressed rates, and the capital-intensive nature of the maritime industry have resulted in reduced port calls.

- The net result of these trends has been the elimination of captive markets for ports, i.e., it has become cheaper for ocean carriers to serve local markets via distant load centers.

- While these factors have had a negative impact on the Port Authority's ability to compete for New England cargoes, market studies performed by Hapag-Lloyd and Reebie Associates[1] suggest that potential opportunities still exist.

- To date, such potential has not been realized, due in part to the Port Authority's lack of a marketing function. Now that that function has been established, pursuit of these identified opportunities must become a priority.

---

[1] Portsmouth Port Marketing Survey and Strategy Study, Reebie Associates, 1983.

III. OVERVIEW OF MARKET DEMAND

A. MARINE CARGOES

- Historically, the Port Authority facility has handled two cargoes--steel scrap and containers (Exhibit III-1). All other cargoes represented 11 percent of total activity between 1978 and 1983.

- Scrap metal exports are generated throughout the New England area and are exported via Portsmouth by Madbury Metals and Tewksbury Metals. Historical tonnages shipped via Portsmouth, as reported by the Army Corps of Engineers, are shown below in Table III-1.

Table III-1

PORTSMOUTH SCRAP EXPORTS

1980-1984

(short tons)

1980	171,850
1981	146,107
1982	151,427
1983	145,829
1984	187,022

Source: Waterborne Commerce of the United States, Part I, U.S. Army Corps of Engineers, 1980-1984.

- Over the last five years, the volume of scrap exported via Portsmouth has displayed little growth (a 9 percent increase). This small increase reflects the negative impacts that the world economic recession and major structural changes in the world iron and steel industry have had on the demand for scrap steel.

A. MARINE CARGOES (continued)

- In the near term, scrap exports through Portsmouth are expected to increase substantially due to the closing of the Schiavoni steel scrap facility in Boston. Discussions with Tewksbury Metals have indicated that the volume of scrap they export through Portsmouth has doubled as a result.

- The closure of the Schiavoni facility has resulted in Portsmouth becoming a major New England gateway for scrap metal cargoes. This factor, combined with the Port's low-cost position relative to Boston, should enhance its ability to handle increased volumes of scrap.

Containers

- Container cargoes handled at the Port Authority pier are associated with Hapag-Lloyd's feeder service. This service comprises a triangular trade between Halifax, Boston, and Portsmouth.

- Containerized cargoes moving through the Port of Portsmouth comprise spirits, consumer goods, and manufactures, and are carried between New England and the United Kingdom/Continent.

- The Port Authority, the Clark Company, and Boston Overseas--Hapag-Lloyd's agents, have been unable to provide data on container tonnages for the period 1980 to 1983. For 1984 and 1985, container tons handled at the Port Authority pier totaled 8,471 short tons and 13,387 short tons, respectively.

Containers (continued)

- Container traffic through the Port Authority facility has been disrupted on several occasions for two major reasons: the berth was unavailable because another vessel was loading scrap steel, and Hapag-Lloyd suspended service for six months during 1984. The suspension was a result of a combination of factors, including berth congestion and a lack of cargoes.

- Three potential growth areas for Portsmouth container cargoes are:

  --New Hampshire State Liquor Commission shipments

  --Expanding spirit imports by New England shippers

  --Other cargoes

- Discussions with the New Hampshire State Liquor Commission and Hapag-Lloyd indicate that the Commission imports between 400 and 600 containers of liquor each year. By contrast, the Port Authority handled 484 inbound containers in 1985.

- Historically, the Commission's cargoes have moved via New York and Boston because of the Commission's purchasing procedures, e.g., it purchases from bonded brokers, which enables the Commission to store inventory duty free.

- The completion of the Port Authority's Foreign Trade Zone application now permits it to offer a similar service to the Commission. In addition, analyses performed by Hapag-Lloyd have indicated that the Commission could save trucking costs by using Portsmouth.

Containers (continued)

- TBS understands that the Commission is considering using Portsmouth in lieu of other ports. Such a shift could nearly double the volume of container traffic through the Port Authority facility.

- Hapag-Lloyd has indicated that several major New England spirits dealers have begun to expand their mix (wine coolers, for example) and volume of shipments through Portsmouth due to increased demand and cost/service factors. While this expanded trade is in its initial stages, Hapag-Lloyd has indicated that it represents long-term potential for Portsmouth.

- The shipper survey conducted by Reebie Associates showed that the Port could attract significant volumes (23,833 tons) of New England containerized cargoes. To date, this potential has not been realized, due in part to Port Authority staff constraints.

- Together, cargoes handled by the New Hampshire Liquor Commission, other spirit shippers, and shippers targeted by the Reebie Study represent a market potential of 1,500-2,000 containers. In contrast, the 1985 container trade approximated 700 containers.

- Assuming the Port Authority could only attract half of this total, it would still represent an increase in traffic of 100 to 150 percent.

B. NONMARINE ACTIVITIES

- Nonmarine, water-dependent cargo activities in the Portsmouth Port Region include the following:

  --Tour boats

  --Commercial fishing

  --Recreational boating

- In addition to these ongoing activities, occasional visits by military vessels and tall ships create a demand for waterfront facilities.

- Quantifying the demand for nonmarine cargo activities is complicated because of the fragmented nature of these industries, i.e., large numbers of small firms and/or entrepreneurs, and the rate at which companies enter and leave the market.

- Tour boat activity provides significant revenue to the Port Authority. Viking Cruises, the Port Authority tour boat tenant, recently signed a five-year lease with the Port Authority. This lease provides for a base rent to the Port Authority of $27,500 per year and a per passenger surcharge of $0.75. This latter fee covers the amortization of $375,000 in capital improvements that the State is making at the Viking Cruises facility. Viking Cruises expects to double its activity at the new facility over the life of its lease. Such an increase would represent an additional $45,000 in revenues to the Port Authority.

B. NONMARINE ACTIVITIES (continued)

- Commercial fishing activity in the Piscataqua River region has expanded significantly over the past few years (17 percent between 1982 and 1984). The Piscataqua River accounts for approximately 80 percent of all fish landed in New Hampshire. The State Fish Pier handles approximately 60 percent of total State landings.

- Interviews with the Portsmouth Co-op and the Portsmouth Chamber of Commerce have indicated that at least one company is looking to locate commercial lobster boats on the Piscataqua River. Because these vessels require little in the way of shoreside infrastructure, accommodation of commercial fishing vessels at an expanded Port Authority facility represents an opportunity to diversify activity and expand the Port Authority's revenue base.

- Interviews with Portsmouth Harbor Cruises have shown the company to be interested in adding an additional vessel to its harbor cruise activity. Because of land constraints at the company's current Ceres Street location, the Port Authority facility represents a logical alternative.

- While this activity could be accommodated at the existing Port Authority facility, the prime location would be adjacent to Viking Cruises' expanded facility, which would require installation of a float, stairway, and other improvements. Parking to accommodate both Viking Cruises' and Portsmouth Cruises' traffic would be a problem.

Exhibit III-1

PORT AUTHORITY CARGO TONNAGE

FY 1978-1983

(percent)

Cargo	1978	1979	1980	1981	1982	1983	1984*
Scrap Metal	97%	89%	94%	68%	83%	78%	96%
Containers	0	0	0	6	8	13	4
Other	3	11	6	26	9	9	N.A.
	100%	100%	100%	100%	100%	100%	100%

*Preliminary data.
N.A. = not available.

Source: Port Authority and TBS.

IV. EVALUATION OF OPTIONS

A. INTRODUCTION

- This chapter evaluates the recommended options for future development of the Port of Portsmouth. Two are capital improvements to berthing areas while the third is a management option.

- The first option develops new terminal facilities north of the existing Port Authority terminal by filling containment areas east of Cutts Cove. This option depends on the availability of dredge spoil from a proposed federal main channel dredging project, and the completion of necessary permits.

- The second option extends the existing terminal wharf to the north and provides for the accommodation of Ro/Ro vessels.

- The third or management option would develop measures to improve the performance of the Port Authority or determine how the State should terminate the existing organization.

B. POTENTIAL FOR DREDGE SPOIL AVAILABILITY

- The first option depends on Congressional approval and funding of the Piscataqua River dredging project. Some transportation cost savings to both the federal government and local interests could be realized if the dredge spoil were moved a short distance to the containment areas instead of to the proposed deep water site southeast of Massachusetts.

- The outlook for Congressional approval for the project is unclear because both the language and number of port projects included in the Senate and House Water Resource bills differ. The House bill (H.R.6) requires local participation of 10 percent for channels less than 20 feet, 25 percent for those 20 to 45 feet, and 50 percent for any greater than 45 feet. Other local costs, including those for rights of way and easements, would be capped at 5 percent of the total cost of the project. The Senate bill (S.1567) adds 10 percent to the local shares for each depth category to be paid over a 30-year period.

- The bills will be negotiated in a joint conference committee and the resultant compromise bill will be returned to both chambers for approval before the passed bill is sent to the President. The Senate bill is currently favored by the Administration.

- In addition to the federal action, State approval of filling the containment area and other changes to the bottom lands in both Options 1 and 2 will be necessary. The permitting process encompasses the procurement of a series of permits at the local and State level before applying to the U.S. Army Corps of Engineers for approval.

C. CAPITAL IMPROVEMENT OPTIONS

Option 1

- Option 1 involves developing two containment areas upriver from the existing Port Authority terminal. The containment sites would be created on either side of the North Mill Pond Inlet Channel, as shown in Figure IV-1.

- The larger site (No. 1), approximately 10 acres in size, would provide a 750-foot-long berth with 35 feet of water alongside at MLW, and a 350-foot-long berth with 25 feet alongside. The smaller site (No. 2), approximately 1.5 acres in size, would provide a 350-foot-long berth in 25 feet of water and 200 feet of berthing space with 9 to 12 feet alongside at MLW. A bridge over the North Mill Pond Inlet Channel would connect the two sites.

- A minimal amount of dredging would be required along the 750-foot berth to ensure a 35-foot depth.

- The containment structure for Site No. 1 would consist of filled cells strengthened with stone columns. Dredged material would be placed shoreward of the containment structure. Site No. 2 would be constructed of a sheetpile retaining wall, or rip-rap with a timber pier above. A berm along the railroad embankment adjacent to Site No. 1 will be necessary to ensure containment and structural stability. Periodic adjustment of the railroad tracks may also be necessary due to consolidation and settlement.

- Several feet of dredged port construction material will likely settle in the near term. Portions of the site will be able to be used for storage of dry bulk materials and containers-on-chassis if care is taken in placement and site preparation. Cell-supported aprons will be capable of accommodating vehicles and crawler cranes, although crane rails would require pile supports. Foundation conditions should be taken into account in locating, designing, and constructing any structures.

Option 1 (continued)

- Prior to proceeding with the dredging project, the State would need to obtain all appropriate permits. Environmental factors to be considered include the impact of the depositing of dredge spoil on Cutts Cove, an environmentally sensitive area, and potential displacement of the Boston & Maine Railroad's embankment. In addition, potential impacts of the project on National Gypsum's property would also need to be addressed.

- The cost of construction and improvements for both containment sites in Option 1 is shown in Table IV-1. Construction cost is estimated at $10.5 million and improvements at $4.3 million, for a total of $14.8 million.

Table IV-1

COST OF CONSTRUCTION AND IMPROVEMENTS OF NEW TERMINAL
IN CONTAINMENT AREAS NORTH OF MAINE-NEW HAMPSHIRE INTERSTATE BRIDGE

(Option 1)

Construction Cost	Site No.1	Site No. 2	Other	Total
Containment Site	$8,450,000	$1,650,000		$10,100,000
Bridge			$400,000	400,000
Total	$8,450,000	$1,650,000	$400,000	$10,500,000
Improvements Cost				
Dredging	$ 470,000	$ 220,000		$ 690,000
Site work (utilities, security, surfacing, drainage)	900,000	140,000		1,040,000
Apron, fenders, etc.	1,340,000	220,000		1,560,000
Transit shed	1,000,000			1,000,000
Total	$3,710,000	$ 590,000		$ 4,300,000
Total Cost				$14,800,000

Option 1 (continued)

- The dredge spoil containment area provides an ideal site for the storage and handling of commodities with large, outside storage requirements. Its location away from the main entrance to the facility and out of sight to most of Portsmouth's urban and residential areas are its major attributes as a bulk/neobulk facility.

- Given these attributes, the major uses to be considered for site No. 1 are the storage and handling of steel scrap currently handled at the existing Port Authority facility and other compatible bulk cargoes that could be attracted to the facility.

- Granite State Minerals salt operation, currently located at the foot of Ceres Street, is an ideal candidate for relocation to site No. 1. Relocation of this facility to the containment area accomplishes the following goals:

  --Removes a heavy industrial activity from close proximity to intensive retail/tourist activities

  --Alleviates noise and air pollution that occasionally emanates from Granite State's facility

  --Provides increased capacity for Granite State's current salt operation and offers expansion opportunities

  --Ensures long-term preservation of a water-dependent industrial activity and its associated economic impacts

  --Frees valuable urban waterfront property to be developed into compatible, urban- and/or tourist-related activities resulting in additional employment, tax revenues, and attractiveness to the central business district of Portsmouth.

Option 1 (continued)

- The potential disadvantages to the relocation of Granite State's operation are potentially higher fixed (lease payments versus existing facility amortization/property taxes) and variable (principally stevedoring) costs for Granite State.

- An additional activity relates to the possible relocation of bulk cargo activity from another port, a recent example being the closure of Schiavoni's scrap facility in Boston. While this opportunity is purely speculative at this time, it should be recognized that bulk cargoes are facing increasingly stiff competition for waterfront property in highly developed ports such as Boston and New York. Such trends represent a very real potential for Portsmouth to significantly increase and diversify its cargo base.

- Due to its limited draft, site No. 2 is designed to accommodate non-cargo-related activities. The principal use envisioned for this site is commercial marine fishing.

- Development of this site for commercial fishing is to augment, not compete with, the existing State Pier facility. This intent is based on expressions of interest on the part of the commercial fishing community that unfilled demand exists for commercial fishing docking facilities and the fact that expansion of the existing State Pier is not considered feasible.

- Shoreside installations required to support commercial fishing activities would include an ice machine, storage for bait, and a lift for landing catches.

Option 1 (continued)

- While tour boat activities could be accommodated at site No. 2, public access to the site would be restricted due to marine cargo operations occurring at both the existing facility and site No. 1. The more logical site for locating a tour boat operation would be adjacent to Viking Cruises' facilities.

- Relocation of the steel scrap operation to containment site No. 1 frees the existing facility to be developed as a multipurpose facility oriented toward general cargo and industrial activities. Specifically, the existing facility could be used to accommodate the following activities:

  --Current and expanded container and general cargo operations

  --A bonded warehouse operation for the New Hampshire State Liquor Commission or other users

  --Other industrial activities--fish processing, for example, as envisioned by AMTEC, Inc., a local fish wholesaler

  --Accommodation of occasional visits by navy vessels, tall ships, and coastal cruise vessels

- In summary, the uses envisioned for the existing facility would be less industry-intensive, aesthetically compatible uses.

- The economic revenues generated from the above activities is estimated to be $498,310 per annum. Table IV-2 provides a breakdown by activity.

Option 1 (continued)

Table IV-2

SUMMARY OF ESTIMATED DIRECT REVENUES TO PORT AUTHORITY
DREDGE SPOIL CONTAINMENT AREA AND EXISTING FACILITY

Activity	Revenue Basis	Projected Units/Year	Annual Revenues
Scrap Metal	$150,000 base revenue	300,000 tons	$150,000[b]
	80% of dockage/wharfage in excess of $150,000		30,720
Containers	$7/20 ft. unit	100 units	560[a]
	$14/40 ft. unit	900 units	10,080[a]
Commercial fishing	$650/vessel	3 vessels	1,950
Viking Cruises	$27,500 base revenue	—	27,500
	$0.75/passenger	100,000 passengers	75,000
Other bulk cargo	$130,000 base lease		130,000[b]
	$0.25/ton dockage	250,000 tons	62,500
Miscellaneous revenues			10,000[c]
Total			$498,310

[a]80% of dockage and wharfage fees from Yankee Clipper.
[b]Based on estimated annual per acre containerization cost of site No. 1.
[c]Dockage from miscellaneous vessel calls and fees.

Source: TBS.

Option 1 (continued)

- Included in this total is $182,500 associated with the attraction of a bulk lessee to the containment area--Granite State Minerals, for example.

- Assuming the containment area is financed by general obligation bonds for 30 years at an interest rate of 10 percent per annum, annual capital costs associated with the containment area total $1.6 million. To this must be added annual capital costs on the existing facility of $0.1 million or a total of $1.7 million.

- Annual revenues generated from the addition of the containment area cover 29 percent of total Port Authority debt service cost, based on the foregoing analysis.

- The revenue projections can be viewed as conservative since they assume the Port Authority is only able to attract one-half the Liquor Commission's annual shipments and one-quarter the potential market defined by Reebie Associates. They also include no provision for expanded uses of the existing facility.

Option 1 (continued)

- Revenues to the Port Authority could be significantly improved by attracting additional tenants to the facility. Examples would include a bonded warehouse operation and an industrial user. Each of these activities could provide for annual contributions to capital costs through leases. Estimates for such revenue have not been made due to the lack of sufficient data on potential users.

- The economic impact on the State from creation of the dredge spoil area and the associated increase in activity it could generate is substantial. Based on the 1985 economic impact study of the Port Authority's[1] operations, the total economic impact both direct and indirect is estimated to be between $8 and $9 million.

[1]The Economic Impact of the Port of Portsmouth on the New Hampshire Economy, M. Wolfenden, 1985.

Option 2

- Option 2 would extend the existing Port Authority Terminal wharf by 700 feet, providing capability for handling side as well as bow- and stern-loading vessels, as shown in Figure IV-2. Depth along the extension is 35 feet, MLW, while depth at the Ro/Ro berth is 25 feet, MLW. This option creates approximately two acres of land.

- Environmental considerations would be primarily associated with the impact on aquatic habitats of filling behind the berth.

- Option 2 includes a 100-foot-long extension of the existing berth and a 600-foot-long second berth, in order to provide flexibility in using both berths. The 100-foot extension of the existing berth also shifts the second berth toward the channel, allowing a 250-foot Ro/Ro berth to be utilized without impinging on navigation.

- This option represents the design recommended in the Preliminary Concepts Phase Engineering Report prepared by CE Maguire and selected by the Port Authority. The wharf would be a caisson-supported, reinforced concrete structure that is 69 feet wide with a sloped, armored, embankment to retain fill. The Ro/Ro wharf and ramp will be of similar construction, but 39 feet wide.

- The cost of construction and improvements for Option 2 are shown in Table IV-3. Construction cost is estimated at $9.5 million and improvements at $1.5 million, for a total of $11.0 million.

Option 2 (continued)

Table IV-3

COST OF CONSTRUCTION AND IMPROVEMENTS
OF EXISTING TERMINAL EXTENSION

(Option 2)

Construction Cost	
Foundation	$2,075,000
Curtain wall	2,810,000
Superstructure	3,105,000
Earthwork	1,500,000
Total	$9,490,000
Improvements Cost	
Dredging	$ 535,000
Fender system, etc.	350,000
Utilities	250,000
Miscellaneous site work	375,000
Total	$1,510,000
Total Cost	$11,000,000

- The addition of the second berth and a Ro-Ro capability at the existing facility would produce three operational/marketing benefits:

  --Eliminate congestion at the existing berth

Option 2 (continued)

--Enhance the Port Authority's marketing efforts through provision of berth guarantees

--Handle roll-on/roll-off traffic

- Elimination of berth congestion would ensure the Yankee Clipper was not shut out of Portsmouth due to a scrap vessel. It would not, however, produce substantial increases in tonnage in and of itself.

- Conversely, the ability of the Port Authority to offer a guaranteed berth could result in a measurable increase in traffic. By guaranteeing a berth, the risk of costly delays to the vessel owner is eliminated, thus improving the attractiveness of the Port.

- Although the addition of a second berth enhances the attractiveness of the Port Authority facility, it will not by itself attract additional service to the Port. However, by ensuring the Yankee Clipper a berth every time it does call in Portsmouth, it may be possible to entice other lines calling at Halifax to use the Yankee Clipper and Portsmouth as a more efficient and cost-effective gateway to northern New England markets.

- Such a marketing effort would require a joint effort on the part of the Port Authority and the Port of Halifax to market this concept to Hapag-Lloyd and carriers serving Halifax.

Option 2 (continued)

- Similarly, the ability to handle Ro/Ro vessels could result in an increase in traffic by providing the specialized facilities these vessels require. The Port Authority staff has indicated that they have consistently received inquiries over time regarding Ro/Ro capabilities at the Port Authority facility.

- TBS is not aware of any coastwise Ro/Ro service (excluding ferries) currently operating within the coastal North Atlantic range (Canada to Norfolk). A few transatlantic line-haul operators--Atlantic Container Lines, for example--provide Ro/Ro service primarily for the carriage of automobiles. However, such services would be unlikely to call at Portsmouth due to the lack of sufficient cargo base to support a call by these large, line-haul ships and the need to limit port calls in order to maintain service frequency.

- A January 1985 study conducted by the Port of Halifax on the potential for a Halifax-New England feeder service suggested some potential exists for a coastal Ro/Ro service that would compete for traffic currently moving via truck between New England markets and Eastern Canada. However, the study did not address the subject in detail and, therefore, potential traffic volumes were not estimated.

- Without conducting a detailed market study for the potential for a New England Ro/Ro service, it is not possible to quantify what traffic could be attracted to the Port Authority facility with the addition of a second berth.

- Annual capital costs associated with Option 2 were estimated at $11.0 million. Assuming this investment was financed with general obligation bonds for 30 years at 10 percent interest, the annual capital cost would total $1.2 million.

Option 2 (continued)

- Revenues generated by the Port Authority, excluding any provision for the attraction of a second carrier or Ro/Ro service to the Port Authority, are estimated at $0.3 million, i.e., revenues developed for Option 1 in Table IV-2, excluding the commercial fishing and other bulk cargo revenues.

- The estimated economic impact from this level of activity is between $7 million and $8 million.

- The $0.3 million revenue number covers only 25 percent of the annual capital cost, resulting in an estimated annual shortfall of $0.9 million when capital costs for the existing facility of $0.1 million are included.

Option 3: Management Options

- The intent of Option 3, as expressed by the Advisory Committee, was to explore ways to improve the existing Port Authority operations and procedures for terminating the Port Authority and its operations. Each of these options was to be explored under the assumption that no capital improvements were made to the facility.

- Several important facts must be kept in mind when exploring ways to improve the Port Authority's existing operations. These include:

  --The Port Authority does not control its assets. Therefore, it is relegated to the role of landlord and contract supervisor.

Option 3 (continued)

--It does not appear feasible to sell the existing facility at the present time, due to the existence of the Clark and Viking leases. Consequently, sale of the facility, without the consent of both Clark and Viking, before 1992, is not an option.

--The Port Authority's ability to market the Port is constrained by its inability to set prices--a function reserved for Clark under its present lease--and by the lack of a second berth.

--As called out in the Sunset Review Committee's report, a duplication of responsibility for managing commercial, water-dependent activities exists between the Port Authority and DRED.

--The Port's revenue base is largely dependent on the Clark lease and a single commodity--scrap metal.

- The net impacts of these factors are that the Port Authority's ability to generate revenues, fund capital improvements, and market the Port are limited.

- If the Port Authority is to improve its performance, three items are required. These are:

  --Clear direction by the State and the Port Authority Board as to what the Port Authority's role is and what criteria are to be used in measuring the Port Authority's performance in fulfilling its stated role. For example, if the Port Authority's role is to generate a return to the State, it should be so stated along with what criteria will be employed in measuring its performance in providing that return--net revenue, cash flow, return on investment, etc.

Option 3 (continued)

--Commitment of adequate resources to perform its role. Within existing constraints, the Port Authority has two options for improving its financial performance--attract more cargoes to the facility and expand the scope of its operations. To attract additional cargoes, the Port Authority must develop an aggressive marketing plan that focuses on those opportunities for which the Port possesses competitive advantages--e.g., specialized service, congestion-free, competitive service to the United Kingdom/Continent, etc. Such a plan requires the development of marketing materials, purchase of customer/shipper information and travel. Expansion of its scope of operations includes promotion of the foreign trade zone or assumption of additional commercial waterfront activities. The latter would require legislative action.

--The Port Authority must establish closer ties to both the Portsmouth Port Community (Clark, Portsmouth Navigation, shippers, truckers, etc.) and State agencies that are responsible for promoting industrial development and commerce. Specifically, the Port Authority in conjunction with other state and port interests needs to identify and then to sell shippers currently using other ports that the total transport package, i.e., costs, service, transit times, etc., are superior via Portsmouth. Similarly, the Port Authority in conjunction with the Governor's office and Hapag-Lloyd need to cooperate in evaluating the advantages/disadvantages of shipping New Hampshire State Liquor Commission cargoes through Portsmouth.

- A second option for improving the Port Authority's performance would be to assume the terminal operating responsibilities currently held by John T. Clark. This option would require the acquisition of a staff member with extensive operating experience. The advantages of assuming the operation would be increased control of pricing and marketing and increased revenues from terminal functions such as handling and storage.

Option 3 (continued)

- A stevedoring firm would still be responsible for loading and unloading the vessels. However, that firm would be appointed by the ocean carrier or his agent.

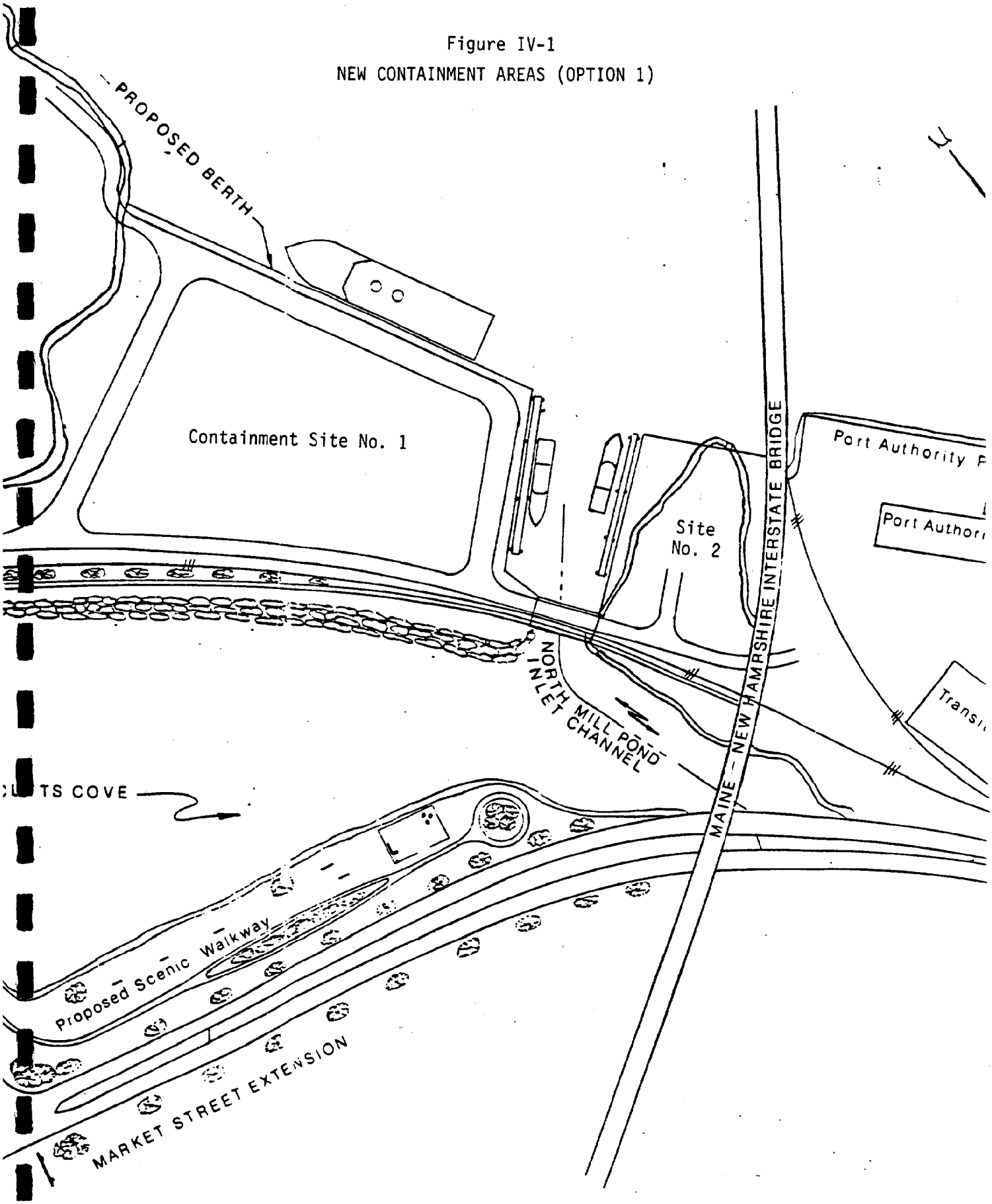
- This option could not be exercised before the termination of the Clark lease in 1992.

- The principal consideration in evaluating options for terminating the Port Authority are (1) what role if any the State desires to maintain in promoting port development and commerce and (2) timing considerations for terminating the Port Authority and its operation.

- If the State wishes only to maintain a landlord or property management function per the Sunset Committee recommendation, then the Port Authority's responsibilities could be transferred to another agency per the Sunset Review and the Port Authority terminated.

- Conversely, if the State desires to sell its coastal industrial holdings, the timing of the sale becomes an issue. The State may have to wait until after the expiration of the current leases in 1992, since it is not clear whether sale of the property could be effected without the consent of the lessees.

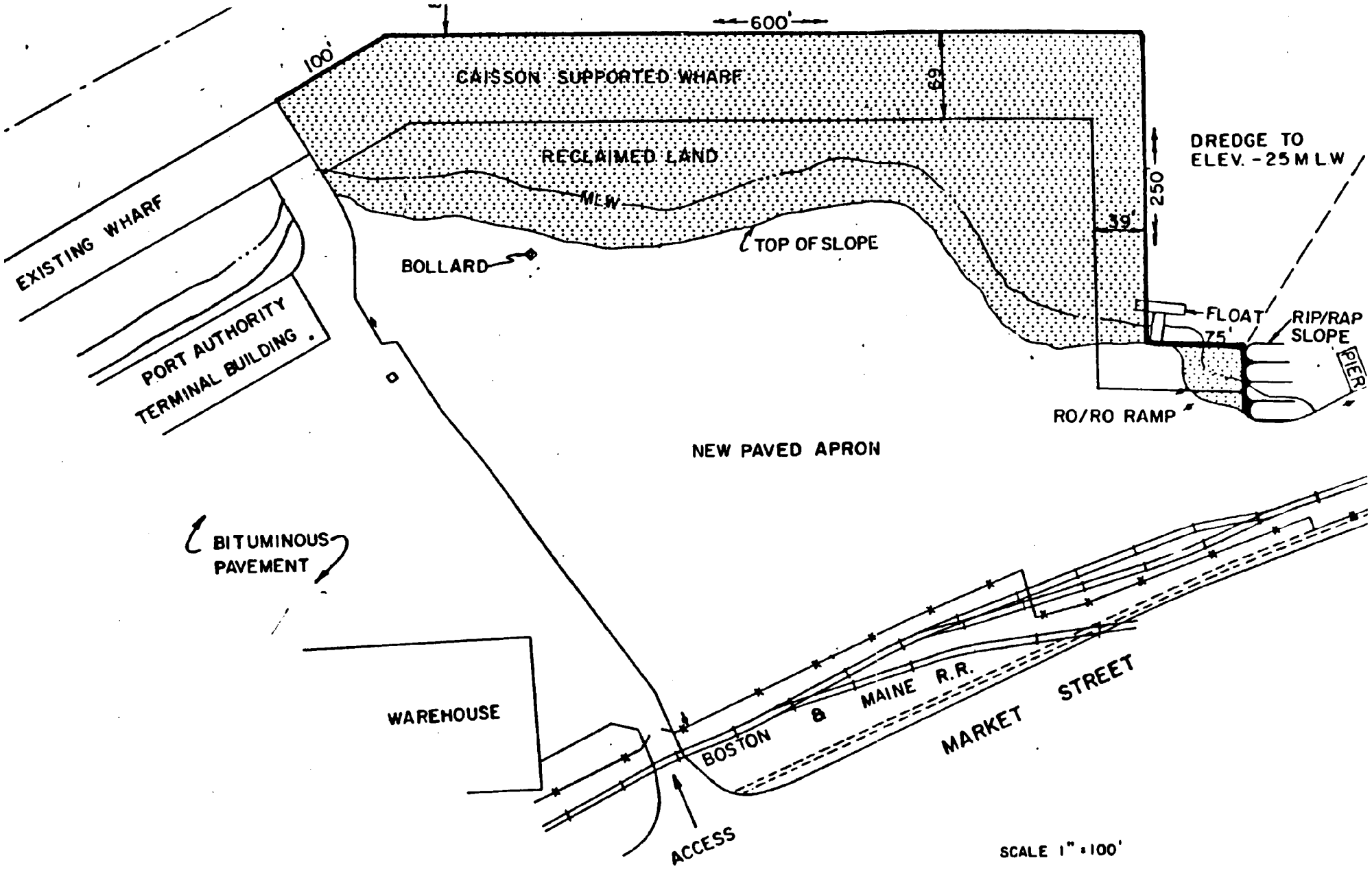
Figure IV-1
NEW CONTAINMENT AREAS (OPTION 1)



Source: Containment Structure Project Status Report, Kimbell Chase, May 1984.

Figure IV-2

EXPANSION OF EXISTING TERMINAL (OPTION 2)



Source: Preliminary Concepts Phase Engineering Report, C.E. Maguire, February 1984.

V. RECOMMENDATIONS

- The Port Authority should actively pursue the creation of the dredge spoil containment area--Option 1.

  --This option provides the Port Authority with the greatest potential for diversifying its cargo and revenue base, rationalizing industrial and commercial waterfront uses within the Portsmouth Port Region, and attracting new users (fishing, cruise ships, industrial tenants, etc.) to its facility.

  --Due to the long lead time associated with this option, i.e., approximately two years before dredging would begin, it affords the Port Authority ample time to identify and attract potential users to the facility. If by the time the State is required to commit substantial sums to the project, additional demand has not materialized, the State has the option to proceed with or terminate the project.

  --Assuming the State were to proceed and sufficient demand did not materialize, the maximum exposure to the State would be from 1989 to 1992, during which time it would incur two to three years of unamortized debt or about $4.8 million. However, this amount would in all likelihood be recaptured through the sale of all or a portion of the Port Authority property.

  --Consequently, the dredge spoil containment area provides the least downside risk of the two capital development options.

- Option 2: Addition of a second berth with Ro/Ro capability at the existing pier does not represent the best use of State resources.

  --Option 2 provides limited diversification opportunities relative to Option 1--principally Ro/Ro which could be added in the containment area.

--The upside potential (primarily Ro/Ro) for Option 2 is less and the downside risk (inability to recover investment) greater--unless the State chose to sell the existing facility to retire the debt.

- Given the potential opportunities to expand the Port Authority's operations and improve its performance, the Port Authority should not be terminated. The absence of maritime expertise in other State agencies, combined with a lack of credibility within the industry, would hinder the pursuit of the existing opportunities.

  --Recent improvements in the Port Authority's financial performance, combined with substantial increases in scrap indicate potential exists for continued improvement. This improvement could be further enhanced if the Port Authority/Hapag-Lloyd are successful in capturing a share of the New Hampshire State Liquor Commissions' cargoes.

- The Port Authority should develop a detailed plan for attracting additional cargoes to its existing facility and for marketing the dredge spoil containment area. Key components of the plan should include:

  --Maximum effort in the short-term to obtaining a major share of the New Hampshire State Liquor Commissions' cargoes

  --Identification and solicitation of bulk cargoes that could be accommodated in the dredge spoil containment area--Granite State Minerals representing a priority flow

  --Initiate discussions with the Port of Halifax and Hapag-Lloyd regarding the marketing of the Yankee Clipper to major lines with particular emphasis on lines serving areas other than the United Kingdom/Continent.

--Pursuit of the potential opportunities identified in the Reebie market survey with particular emphasis on export cargoes

--Increased cooperation and coordination of marketing efforts among the Port Authority, John T. Clark, Boston Overseas, and Hapag-Lloyd

- During the next four years, the Port Authority and its Board should begin to explore its options as they relate to the expiration of the Clark lease. Specifically, the Port Authority should:

  --Explore modification of the lease in order to remedy existing shortcomings as they relate to pricing and control of the premises

  --Assess the managerial, technical, and financial aspects of becoming an operating port

  --Initiate preliminary discussions with a number of terminal operators regarding leasing of the facility (post-1988)